Case Report - Oncology

A common tumor in an uncommon location: Lipoma of the palate

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ABSTRACT

Lipomas are benign mesenchymal neoplasms that originate in mature adipose cells. Although rare in the oral cavity, they are mostly seen in the buccal mucosa, tongue, and gingiva; those arising from the palate are very rare. We report a case of a 42-year-old male patient with a large intraoral swelling that on excision was reported as a lipoma. Oral lipomas are rare and those occurring on the hard palate are even rarer. Radiological evaluation is warranted for larger lesions to know exact extent. Lipoma should be considered in the differential diagnosis of a palatal swelling.

Keywords: Intraoral swelling, lipoma, palate tumor

INTRODUCTION

Lipoma is a benign mesenchymal neoplasm composed of mature adipocytes, usually surrounded by a thin fibrous capsule.[1] They are the most common soft tissue tumor in the human body and about 20% of cases occur in the head and neck region.[1] Oral lipomas are however rare and comprise only 0.5–4% of all benign tumors of the oral cavity.[1,2] They usually present as painless, well-circumscribed, slow-growing submucosal or superficial lesions. The most frequent site is buccal mucosa, followed by tongue, floor of mouth, lips, and gingiva.[1,2] Here, we report a rare case of large palatal lipoma and discuss its clinical relevance.

CASE REPORT

A 42-year-old male patient presented with a slow-growing mass in his mouth for the past 3 years, which was associated with dysphagia and change in his speech for the past 2 months. On examination, there was a 6 cm × 4 cm smooth-surfaced, firm, nonpulsatile mass on the right side of the hard and soft palate extending to the lateral pharyngeal wall [Figure 1]. The computed tomography (CT) scan revealed a well-defined hypodense lesion measuring 6.1 cm × 4.3 cm × 3.4 cm in the oral cavity [Figure 2]. The fine needle aspiration cytology of the mass was reported as lipoma and mass was excised by an intraoral approach. The postoperative histological examination of the specimen was diagnostic of a simple lipoma [Figure 3]. The postoperative [Figure 4] period was uneventful with no residual masticatory or speech disturbances. He was started on oral diet on the 3rd postoperative day and was asymptomatic after 4 months of follow-up.

DISCUSSION

Lipoma is a benign slow-growing neoplasm composed of mature fat cells. The first description of oral lipomas was given by Roux[3] in 1848 in a review of alveolar mass; he referred it as a "yellow

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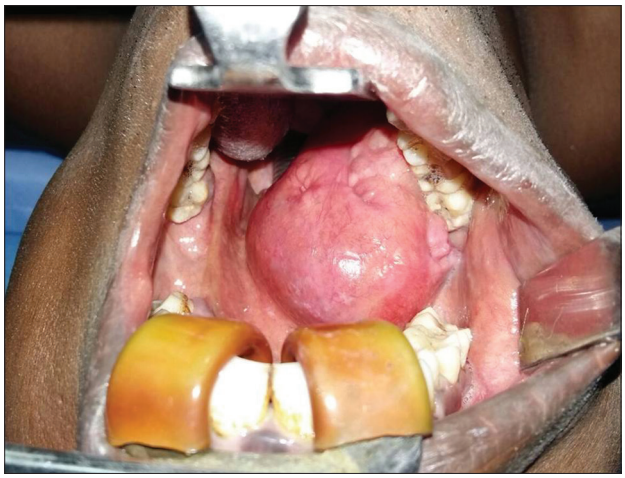

Figure 1: Patient with a smooth lobulated swelling on the right side palate extending until the lateral pharyngeal wall

Figure 2: Computed tomography scan showing a hypodense lesion with thin peripheral enhancing wall occupying the right oral cavity, crossing the midline, and extending to the right lateral pharyngeal wall

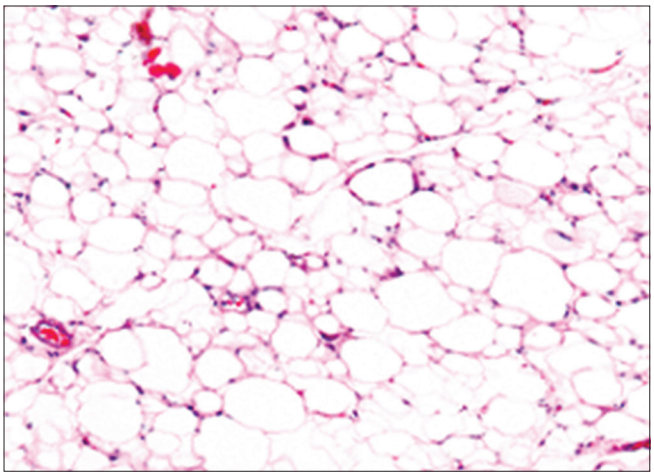

Figure 3: Benign tumor composed of mature adipocytes with uniform nuclei (H and E, ×40)

Figure 4: Postoperative picture showing the excised site

epulis." Lipomas are rare in the oral cavity. The most common location of lipoma in the oral cavity is the buccal mucosa, a region abundant in fatty tissue, followed by tongue, lips, and floor of the mouth.[1,2] This pattern of location of the tumor corresponds to the quantity of fat deposits in the oral cavity. The palate has very little fatty tissue and the incidence of a lesion here is quite low.[4] Although lipoma may resemble fat cells histologically, they differ from them metabolically. It has been shown that the fat of lipoma is not used for energy production during the starvation period, as it happens with normal adipose tissue.[1,2]

No clear explanation exists regarding the pathogenesis of oral lipomas[4]. Various mechanisms have been proposed for explaining the origin of these tumors in the oral cavity, this range from origin from lipoblastic embryonic cell nests, metaplasia of muscle cells, and trauma to chronic irritation and fatty degeneration.[5,6]

Although most lipomas are asymptomatic, the symptoms when present depend on the rate of growth, size, and location of the tumor. The usual complaint is of a painless palpable mass. Examination reveals a well-defined, soft to firm, and smooth-surfaced tumor. The tumor is soft and flat when the underlying muscle is relaxed and becomes firm and more spherical when the muscle contracts. The differential diagnosis includes lesions with similar clinical features, such as thyroglossal duct cysts, pleomorphic adenoma, mucoepidermoid carcinoma, lymphoepithelial, or dermoidoral cysts.[1]

The most common histopathological type of lipoma is a simple lipoma; this type was also seen in our case. Other histopathologic types are fibrolipomas, angiolipomas, intramuscular or infiltrating lipomas, pleomorphic lipomas, spindle-cell lipomas, salivary gland lipomas (sialolipomas), and myxoid lipomas.[1,2,4,5]

Histologically, simple lipomas consist of mature adipocytes with uniform nuclei and scanty connective tissue; fibrolipomas, however, consist of fat cells interspersed in broad bands of dense connective tissue.[4,5] Simple lipomas have no site, age, or sex predilection unlike fibrolipomas which are more frequent in the cheek mucosa and show a slight female predominance. Angiolipoma is a rare histological subtype seen due to overgrowth of vascular tissue and usually affects adolescent males and subjects in their early 20s.[4,5] Myxoid lipomas of the oral cavity

are rare. Microscopically, these lipomas were well-circumscribed and contained adipocytes of variable size and myxoid areas.[4,5]

Another type is called the infiltrating type, due to its tendency to invade muscles or grow between them. Although uncommon in the oral cavity, it is difficult to treat due to its ability to infiltrate adjacent muscle and recur locally. Due to the infiltrating nature, it is sometimes confused with a liposarcoma.[1,2] However, both can be differentiated histologically as liposarcoma will have areas of lipoblastic proliferation, cellular pleomorphism, increased vascularity and mitosis, feature that are not present in infiltrating lipoma. They can also be differentiated by immunohistochemical detection of the immune marker "al 2 protein," which is expressed in lipoblasts of liposarcoma and will not be seen in infiltrating lipoma.[5]

The diagnosis is based on the cytological examination of the tissue, which can easily be obtained by fine needle aspiration. Radiological evaluation with CT scan is seldom necessary; however, in larger lesions as in our case where the mass was extending to the lateral pharyngeal wall, a preoperative CT scan may be warranted to know the extent of the mass and infiltration into underlying structures.

Treatment is indicated only when the tumor interferes with speech, mastication, or is cosmetically unacceptable.[4-6] The treatment of oral lipomas regardless of the histologic variant is simple surgical excision.[4-6] The prognosis is good as recurrences are uncommon, but they may occur in the infiltrative variant.

CONCLUSION

To conclude, lipomas are uncommon tumors in the oral cavity. When present in the oral cavity, they are predominantly seen in the buccal mucosa and location in the palate is very rare. Here, we present a rare case of a lipoma arising from the palate. We would like to highlight the importance keeping lipoma in the differential diagnosis when evaluating a palatal mass. We also like to raise awareness on the need for a careful radiological examination of large lesions arising from the palate, as in the present case, to look for infiltration into the surrounding tissue and bone.

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Conflicts of interest
There are no conflicts of interest.

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